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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/698,060

Applicant(s)

AULTMAN ET AL.

Examiner

MARK D. FEARER

Art Unit

2443

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 12-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, and 12-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's Request for Continued Examination filed 10 July 2009 is acknowledged.
2. Applicant's Amendment filed 10 July 2009 is acknowledged.
3. Claims 1, and 21 have been amended.
4. Claims 3-11 are cancelled.
5. Claims 1-2, and 12-27 are pending in the present application.

Continued Examination Under 37 CFR 1.114

6. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Claim Objections

7. Claim 21 is objected to because of the following informalities: the current Amendment states 'second stage area network'. The application was examined as if it read 'second storage area network'. Appropriate correction is required.
8. Claims 1-2, and 12-20 are objected to because the specification is failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1)

and MPEP § 608.01(o). Correction of the following is required: The term 'layer' seems to alternate between describing a number of computers, and a traditional software layer.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-2, and 12-20 are rejected under 35 U.S.C. 112, first paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Claimed term 'storage area network (SAN) layer' does not seem to be described in the Specification.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1-2, and 12-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fruchtmann et al. (US 20030172130 A1) in view of Tremain (US 20020069369 A1) and in further view of Ulrich et al. (US 20020165942 A1).

Consider claim 1. Fruchtmann et al. discloses an enterprise data backup and recovery system ("A method of restoring data in a computer network system wherein a plurality of client systems have access to a storage pool coupled to an associated storage area network (SAN) consistent with the invention includes: requesting a restore wherein each of the plurality of client systems may participate in the restore; and coordinating access to the data stored in the storage pool by tracking a plurality of data portions of the data to be restored and by blocking access to each of the plurality of data portions that have been restored by one of the plurality of client systems to avoid duplicative restoration efforts.") paragraph 0008 ("A computer network system for restoring data comprising: a plurality of client systems; a storage pool coupled to said

plurality of client systems through a storage area network (SAN); and a storage management server coupled to said plurality of client systems through said SAN, wherein said storage management server is configured to coordinate access to said data stored in said storage pool by tracking a plurality of data portions of said data to be restored and by blocking access to each of said plurality of data portions that have been restored by one of said plurality of client systems to avoid duplicative restoration efforts.") claim 13), comprising: a first network and a second network ("To address the volume and importance of storing such data on client/server networks, storage area networks (SANs) have emerged to free up bandwidth on such LANs and to provide storage and related storage services to clients of one or more client systems such as backup and restoration functions. A SAN is a dedicated network separate from LANs and wide area networks (WANs) which interconnects storage devices to one or more servers and to a plurality of clients and/or client systems in a related network.") paragraph 0003, the plurality of networks, to include SAN, is read as two or more SAN configured as follows); the networks comprising: a processor layer ("Turning to FIG. 1, a block diagram of a computer network system 100 including a storage management server 102 configured to create and store a master restore table consistent with the present invention is illustrated. The computer network system 100 may contain a plurality of client systems 103, 115. Although only two client systems 103, 115 are illustrated for clarity, those skilled in the art will recognize that a computer network system 100 consistent with the invention may contain any number of client systems. Each client system may contain a plurality of clients. For instance, a first client system

103 may contain its associated plurality of clients 107, 109, 111 and a second client system 115 may similarly contain its associated plurality of clients 117, 119, 121. Each client may be a PC or software on such PCs. Clients in each client system 103, 115 are coupled directly to each other in any number of fashions known to those skilled in the art, but are not coupled directly to other clients in other client systems. In addition, those skilled in the art will recognize any number of clients may be present in a computer network system 100 consistent with the invention.") paragraphs 0013-0014); a storage area network layer in communication with the processor layer; and a storage layer in communication with the storage area network layer ((“One or more of the clients 107, 109, 111 or 117, 119, 121 may be equipped with storage software, e.g., a storage agent, enabling the client with such software to communicate data to be stored in associated storage pool 134 directly over the SAN 106. The storage pool 134 includes a plurality of storage devices 112, 114, 116. Any number of such storage devices 112, 114, 116 may be present in a computer network system 100 consistent with the invention. Each storage device 112, 114, 116 includes some storage medium which physically stores the data such magnetic tape, optical disks, hard disks, floppy disks, or the like.”) paragraph 0015); a first switching platform in communication with the first storage area network layer, wherein the first switching platform is an interface to a first access circuit terminating at the first network; a second switching platform in communication with the second storage area network layer, wherein the second switching platform is an interface to a second access circuit terminating at the second network; and wherein the first and second access circuits provide connectivity between

components of the first and second networks via the first and second switching platforms (Fruchtman et al., paragraph 0005).

However, Fruchtman et al. fails to disclose a first network and a second network in communication through a third network. Tremain discloses a method and apparatus for providing computer services that allow communication between two or more computers or networks via a third network which may be very widely or loosely connected ((“Virtual private networks (VPNs) allow communication between two or more computers or networks via a third network which may be very widely or loosely connected (such as the Internet). The virtual private network technologies (see for example U.S. Pat. No. 5,835,726) are designed such that a computer runs special software which provides a virtual private network gateway to encrypt traffic and send it across the insecure third network to another gateway which decrypts the information and sends it on to the destination computer or network, and vice versa. Industry standards such as IPSEC have been devised to allow standard interoperability between multiple vendors' virtual private network software.”) paragraph 0099) and a dedicated data connection (paragraph 0048).

Fruchtman et al. discloses a prior art enterprise data backup and recovery system, comprising: a first network and a second network; the networks comprising: a processor layer; a storage area network layer in communication with the processor layer; and a storage layer in communication with the storage area network layer upon which the claimed invention can be seen as an improvement.

Tremain teaches a prior art comparable method and apparatus for providing computer services that allow communication between two or more computers or networks via a third network which may be very widely or loosely connected, and a dedicated data connection.

Thus, the manner of enhancing a particular device (method and apparatus for providing computer services that allow communication between two or more computers or networks via a third network which may be very widely or loosely connected, and a dedicated data connection) was made part of the ordinary capabilities of one skilled in the art based upon the teaching of such improvement in Tremain. Accordingly, one of ordinary skill in the art would have been capable of applying this known improvement technique in the same manner to the prior art enterprise data backup and recovery system, comprising: a first network and a second network; the networks comprising: a processor layer; a storage area network layer in communication with the processor layer; and a storage layer in communication with the storage area network layer of Fruchtman et al. and the results would have been predictable to one of ordinary skill in the art, namely, one skilled in the art would have readily recognized a first network and a second network in communication through a third network; wherein, the first and second storage layers are shared by the first and second networks via the third network; and wherein, information stored in the first storage layer is transferred to the second storage layer via the third network under the control of the first processor layer for the purpose of an enterprise backup system and method.

However, Fruchtmann et al., as modified by Tremain, fails to disclose a third storage layer in communication with the second storage area network and in communication with one or more application servers.

Ulrich et al. discloses a system and method of a data path accelerator with variable parity, variable length, and variable extent parity groups comprising a third storage layer (paragraph 0553) in communication with the second storage area network (paragraph 0392) and in communication with one or more application servers (paragraph 0545).

Fruchtmann et al., as modified by Tremain, discloses a prior art method and apparatus for providing computer services that allow communication between two or more computers or networks via a third network which may be very widely or loosely connected, a dedicated data connection, and enterprise data backup and recovery system, comprising: a first network and a second network; the networks comprising: a processor layer; a storage area network layer in communication with the processor layer; and a storage layer in communication with the storage area network layer upon which the claimed invention can be seen as an improvement.

Ulrich et al. teaches a prior art comparable system and method of a data path accelerator with variable parity, variable length, and variable extent parity groups comprising a third storage layer in communication with the second storage area network and in communication with one or more application servers via a dedicated data connection.

. Thus, the manner of enhancing a particular device (system and method of a data path accelerator with variable parity, variable length, and variable extent parity groups comprising a third storage layer in communication with the second storage area network and in communication with one or more application servers via a dedicated data connection) was made part of the ordinary capabilities of one skilled in the art based upon the teaching of such improvement in Ulrich et al. Accordingly, one of ordinary skill in the art would have been capable of applying this known improvement technique in the same manner to the prior art method and apparatus for providing computer services that allow communication between two or more computers or networks via a third network which may be very widely or loosely connected, a dedicated data connection, and enterprise data backup and recovery system, comprising: a first network and a second network; the networks comprising: a processor layer; a storage area network layer in communication with the processor layer; and a storage layer in communication with the storage area network layer of Fruchtmann et al., as modified by Tremaine, and the results would have been predictable to one of ordinary skill in the art, namely, one skilled in the art would have readily recognized an enterprise backup system and method.

Consider claim 2, as applied to claim 1. Fruchtmann et al., as modified by Tremaine and Ulrich et al., discloses a system wherein the first processor layer comprises: a first media server; a first application storage manager server in communication with first media server via a first local area network ("Turning to FIG. 2, an exemplary master

restore table 200 consistent with the invention that may be created and temporarily stored on a storage management server 102 or any device common to the system 100 is illustrated. The table 200 generally is used to track portions of data to be restored and the associated restore media from the various storage devices 112, 114, 116 of the storage pool 134 where such portions of data are located. A host of clients 107, 109, 111 and 117, 119, 121 and client systems 103, 115 may be able to access the table 200 to optimize restore efforts from a plurality of client systems 103, 115. Although described in terms of columns and rows, a master restore table consistent with the invention may take a variety of forms.”) Fruchtman et al., paragraph 0021); and a first client in communication with the first media server via the first local area network; wherein the information is transferred to the first media server and to the first storage layer (“[0004] It is well known that individuals and organizations continually upgrade their computer equipment. For example, an individual or organization may simply want to improve the speed of running of currently owned software applications and will therefore typically purchase a new computer or network server, as appropriate, in order to obtain a more recent and therefore faster central processor unit, more and/or faster memory, etc. An individual or organization may require additional and/or faster file and/or data storage because of growth in the size of files or amount of data that is stored or simply for quicker access to the stored files/data. As a further example, newer software applications may have a minimum computer specification that exceeds that currently owned by the individual or organization. As will be discussed in more detail below, the purchase of additional or new, upgraded computer equipment brings

numerous problems, including particularly the requirement for a significant capital outlay and for time to be spent in installing and setting up the new equipment. In any event, the cost of maintaining computer equipment can be significant, both in financial terms and in respect of the time spent in maintenance.") Tremain, paragraph 0004).

Consider claim 12, as applied to claim 1. Fruchtman et al., as modified by Tremain and Ulrich et al., discloses a system wherein: the second processor layer further comprises: a second media server; and a second application storage manager server in communication with second media server via a second local area network ("Storage devices are a place to keep and retrieve data on a long-term basis. Each storage device includes some storage medium which physically stores the data such magnetic tape, optical disks, hard disks, and floppy disks. Storage media can also be arranged in a variety of ways including a redundant array of independent or inexpensive disks (RAIDs) which typically function as one of the storage devices in a SAN.") Fruchtman et al., paragraph 0004); and wherein, the second storage layer further comprises: a second disk storage array in communication with the second application storage manager server for storing the information; and a second backup library in communication with the second application storage manager server for storing the information; wherein the second application storage manager server controls the movement of the information from the second disk storage array to the second backup library ("[0104] Advanced secondary storage subsystems of the type manufactured by StorageTek, IBM and others optimize the use of physical storage such that virtual

servers may run conventional software which requires no special disk or tape drivers, whilst the physical server may use advanced proprietary software to communicate with the advanced storage mechanisms. These advanced storage mechanisms, amongst other things, cache frequently-accessed data in very high speed semiconductor RAM (thus eliminating time delays normally incurred in disk track seek time, rotational latency, rotational speed and disk head read/write speed); optimize the placement of data on the real disks to enhance performance (in order to reduce disk actuator seek time and rotational latency involved with spinning magnetic storage); provide the ability to "snapshot" virtual disks to provide instant copies for archival or roll-back purposes; and optimize space utilization by eliminating duplicate copies of the same information stored in two separate places (such as when a file or group of files is copied). Virtual tape systems (as manufactured by StorageTek, IBM, Hitachi and other suppliers) may be used to create tape drives of the sort which commodity operating systems running on virtual machines are programmed to communicate with, when in fact the real storage consists of high-speed disk storage and proprietary high-performance tape storage of a sophistication which commodity operating systems cannot readily use. Finally, hierarchical storage systems can automatically migrate infrequently used files (which may consist of entire virtual disks) from high-cost rotating disk storage to low-cost serial-access or random-access tape systems which may utilize automatic robotic tape libraries coupled with multiple tape drives.") Tremain, paragraph 0104).

Consider claim 13, as applied to claim 12. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses a system wherein the second disk storage array is in communication with the second backup library via a fiber channel (Tremain, paragraphs 0104 and 0165).

Consider claim 14, as applied to claim 12. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses a system wherein the second disk storage array is in communication with the second application storage manager server via a fiber channel (Tremain, paragraphs 0104 and 0165).

Consider claim 15, as applied to claim 12. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses a system wherein the second backup library is in communication with the second application storage manager server via a fiber channel (Tremain, paragraphs 0104 and 0165).

Consider claim 16, as applied to claim 1. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses a system comprising a second switch in communication with the second storage area network layer for receiving the information from the third network ("The primary Gigabit Ethernet interfaces on the four IBM x370 servers A1,B1,C1,D1 are connected to a high-speed Gigabit Ethernet switch 2 (such as

those manufactured by Cisco). The secondary Gigabit Ethernet interfaces on the four IBM x370 servers A1,B1,C1,D1 are connected to a second high-speed Gigabit Ethernet switch 3 for systems management purposes. These two switches 2,3 are not connected together.") Tremain, paragraph 0184).

Consider claim 17, as applied to claim 1. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses a system wherein the first network is a network based backup and recovery network ("To address the volume and importance of storing such data on client/server networks, storage area networks (SANs) have emerged to free up bandwidth on such LANs and to provide storage and related storage services to clients of one or more client systems such as backup and restoration functions. A SAN is a dedicated network separate from LANs and wide area networks (WANs) which interconnects storage devices to one or more servers and to a plurality of clients and/or client systems in a related network. A storage management server or servers may also be utilized to control the storage devices and keep track of the data that the plurality of clients have stored on the plurality of storage devices coupled to a common SAN. The storage management server may also be utilized in data restoration efforts. Data restoration permits clients to copy a version of a backup file or files stored on any one of the plurality of storage devices.") Fruchtmann et al., paragraphs 0003 and 0006).

Consider claim 18, as applied to claim 1. Fruchtmann et al., as modified by Tremaine and Ulrich et al., discloses a system wherein the first network is a network based gigabit Ethernet network ("A second physical apparatus of the type described above located in a geographically separate location can be constructed and interconnected with the first, for example by means of Gigabit Ethernet and IBM ESCON.") Tremaine, paragraph 0186).

Consider claim 19, as applied to claim 1. Fruchtmann et al., as modified by Tremaine and Ulrich et al., discloses a system wherein the first network is a LAN-free dedicated tape drive network ("The master restore table 200 may include a plurality of columns including: a first column 202 detailing the portions of data to be restored; a second column 204 detailing the location of such portions of data on associated media from various storage devices 112, 114, 116 of the storage pool 134; a third column 206 detailing a LAN-free path for accessing the associated storage media if such path exists, a fourth column 208 detailing a server-free path for accessing the associated storage media if such path exists, and a fifth column 210 detailing the status of whether an associated storage media has been processed for a given portion of data. Advantageously then, the fifth column tracks the portions of data that have been processed by any one client in any one plurality of client systems 103, 115. In this way, clients or restore processes from any client system 103, 115 would be blocked from restoring a portion of that data that had already been processed or restored.

Accordingly, duplicative restoration efforts are automatically avoided.”) Fruchtman et al., paragraph 0022).

Consider claim 20, as applied to claim 1. Fruchtman et al., as modified by Tremain and Ulrich et al., discloses a system wherein the first network is a server-free network (Fruchtman et al., paragraph 0022).

Consider claim 21. Fruchtman et al., as modified by Tremain and Ulrich et al., discloses an automated storage management server resident on a first storage area network, comprising a processor that: transfers information from a first storage region resident on the first storage area network to a second storage region resident on the first storage area network (Fruchtman et al., Claim 13, and paragraph 0003); wherein the server is connected via uplink and downlink gigabit connections to a routing switch for providing bandwidth for backup and recovery (Fruchtman et al., paragraph 0005); wherein the first storage region is in direct communication through a dedicated data connection (Tremain, paragraph 0048) to one or more application servers; and transfers information from the second storage region to a third storage region resident on a second storage area network (Ulrich et al., paragraphs 0099, 0545, and 0553) via a third network (Tremain, paragraph 0099).

Consider claim 22, as applied to claim 21. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses an automated storage management server wherein the processor transfers information by communicating with a first disk storage array (Ulrich et al., paragraph 0013) of the first storage region and a first backup library (Tremain, paragraph 0104) of the first storage region (Fruchtmann et al., paragraphs 0013-0015).

Consider claim 23, as applied to claim 22. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses an automated storage management server wherein the processor communicates with the first disk storage array via a fiber channel (Ulrich et al., paragraph 0179).

Consider claim 24, as applied to claim 22. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses an automated storage management server wherein the processor communicates with the first backup library via a fiber channel (Ulrich et al., paragraph 0179).

Consider claim 25, as applied to claim 21. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses an automated storage management server wherein the processor transfers information from the second storage region to the third storage

region via one or more switches (Ulrich et al., paragraph 0461, and Tremain, paragraph 0160).

Consider claim 26, as applied to claim 21. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses an automated storage management server wherein the processor transfers information from the second storage region to the third storage region via an asynchronous transfer mode network (Ulrich et al., paragraph 0390).

Consider claim 27, as applied to claim 21. Fruchtmann et al., as modified by Tremain and Ulrich et al., discloses an automated storage management server wherein the processor transfers information from the first storage region to the second storage region via a gigabit Ethernet network (Ulrich et al., paragraph 0131).

Response to Arguments

13. Applicant's arguments filed 10 July 2009 with respect to claim 1 has been considered but are not persuasive.

Applicant can find no disclosure or suggestion in Ulrich of a third storage layer in communication with the second storage area network layer and in communication with one or more application servers via a dedicated data connection as recited in claim 1.

Examiner respectfully disagrees. Ulrich et al. discloses a system and method of a data path accelerator with variable parity, variable length, and variable extent parity groups comprising a third storage layer ('storage management layer 4016', paragraph 0553) in communication with the second storage area network ('unified storage area', paragraph 0392) and in communication with one or more application servers ('disk array 3920 can be configured to provide data availability', paragraph 0545). Fruchtmann et al., as modified by Tremain, discloses a prior art method and apparatus for providing computer services that allow communication between two or more computers or networks via a third network which may be very widely or loosely connected, a dedicated data connection, and enterprise data backup and recovery system, comprising: a first network and a second network; the networks comprising: a processor layer; a storage area network layer in communication with the processor layer; and a storage layer in communication with the storage area network layer upon which the claimed invention can be seen as an improvement.

Conclusion

14. Any response to this Office Action should be faxed to (571) 273-8300 or mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Mark Fearer whose telephone number is (571) 270-1770. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Art Unit: 2443

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Mark Fearer

/M.D.F./

September 21, 2009

/George C Neurauter, Jr./

Primary Examiner, Art Unit 2443